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On August 12, 1968, the President announced the decision that the Bikinians were to be returned to their home Atoll. At the same time the Chairman, AEC, released the findings of an Ad Hoc Committee whose recommendations were the basis for the decision. Among these recommendations were items on cleanup of the Atoll, follow-up radiological surveys, and dietary considerations.

Cleanup of the Atoll which was completed in October, 1969, was a joint effort by AEC and DOD. Construction of housing and replanting coconut trees is the responsibility of Department of Interior. The Secretary of Interior has stated that agency will look to the AEC for support in radiation safety matters. Thus, the AEC must plan and conduct a follow-up program of surveillance and study of the radiation environment at Bikini Atoll. Among the objectives of the program, the following are of immediate concern:

1. A determination of the shielding provided by housing now under construction. Yes
2. A determination of the base-line body burdens of certain key radionuclides for the Bikini people when they first return.
3. A determination of the actual diet and radionuclide content of this diet for the returning population including use of imported foods. This diet is likely to require a supplement for calcium which should be provided to minimize exposure to strontium-90.

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4. A determination of levels of certain key radionuclides in food crops grown in the Atoll.
5. A determination of daily activities by age and sex.
6. Air sampling under conditions of occupancy of the Atoll.
7. Sampling of water supplies (wells and cisterns).
8. Determination of body burdens of certain key radionuclides as Bikini residents come into equilibrium with their diet.

It is expected that annual field trips will be needed over the next five years to collect the information, measurements, and samples required to meet these objectives.

There are other requirements with longer range objectives which are also important. The following must be conducted:

1. A study of the movement of radionuclides through Bikini soils.
2. Monitoring of radiation levels on other islands in the Atoll for which the Bikinians are presently not allowed to resettle.
3. A study of the radionuclide content of coconuts from trees now being planted and of pandanus yet to be planted. (It will be seven or eight years before fruit of these trees will be available but estimates can be made before this time by analyzing leaves and stems of young plants.)
4. A study of the radionuclide content of products obtained from coconuts, the use of these products outside the Atoll, and the pathways to man for radionuclides in these products.

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5. Monitoring of radionuclide content of salt water and sediment in Bikini Lagoon.

In establishing this follow-up program for insuring the health and minimizing exposure of the Bikini Atoll population, there must be a provision for a survey of levels of radiation and radioactivity in Eniwetok Atoll. AEC has the same responsibility for contamination of the environment in Eniwetok as at Bikini and there is minimum information, none of it current. We understand there are military personnel stationed in the Atoll which is presently used as a part of the Pacific Missile Test Range. A survey must be conducted within the next two to three years and at no less than ten year intervals thereafter subject to use made of the Atoll.

As to policy guidance for these future activities, Miller of NV, in a memo to Giller, Biles, and Totter asked two questions:

1. Who has the program responsibility for Bikini follow-up activities?
2. Where are the dollars coming from?

By memo of November 17, 1970, to Giller and Biles, Totter says they feel a new phase of monitoring and survey on Bikini should be developed with new considerations. We wholeheartedly support this position.

Biology and Medicine has an arrangement with Bob Conard to do some medical studies on the Bikini people and to sample urine and blood and to do some whole body counting. Any R and D efforts by Biology and Medicine

are yet to be determined. In our view, the objectives and activities of the proposed Bikini Environmental Safety Project would not overlap Conard's efforts nor would they conflict with the Biology and Medicine R and D role.

In our opinion, AEC is faced with the requirement to provide long term follow-up on the health of the Bikini natives and radiation status of the Atoll environment. We have in view the need to initially provide frequent monitoring support and studies (for about the first five years) of the way in which the returning natives use and adapt to a new and unique environment.

Our discussions with the natives and with Trust Territory officials indicate the natives are concerned if not fearful that radiation at Bikini may be a hazard. They are known to have suppressed the expression of this concern to some extent for fear they may jeopardize their chance to get the land back. Once they get the land it may be expected they will be more vocal in expressing their concern.

What studies may be conducted by Biology and Medicine or by other agencies is not known at this time. There is a good chance that studies of possible long term effects on the Bikini population will be conducted by someone. It can also be expected that any problem or misfortune of natives for which there is no clear explanation will be blamed on radiation and laid at the AEC doorstep. In our view, AEC may well be committed to providing some level of radiological safety support and surveillance at Bikini Atoll for a generation or more.

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Trust Territory officials have expressed the desire that there be minimum disruption of the Bikini population once they return. This means the number of visits by AEC teams should be kept to a minimum. In our view, the field operations phase of the two types of AEC sponsored surveys (environmental and medical) could be combined into a single visit with substantial savings in logistics support and transportation costs. In years when a combined effort is feasible, the team would have an inherent capability to handle emergency medical problems during the visit.

As to the level of support needed, the total cost of the 1970 survey was \$110,000. This effort consisted of air sampling and soil sampling over a period of about two weeks by a ten member team. Communications and transportation facilities within the Atoll provided by Trust Territory were found to be inadequate and must be provided by AEC for any future trips. Also, there were no provisions in the Atoll to meet medical emergencies. The best current estimate of cost is \$150,000 per year for this project over the next five years. A survey of Eniwetok (primarily external gamma, radionuclide content of soils, contaminated scrap monitoring) sometime in the next two to three years would require a ten man team about three weeks in that Atoll at a cost of about \$100,000.

ORIGINAL USE ONLY

SUGGESTED CAPTIONS FOR PHOTOS OF 1968 BIKINI TRIP\*

1. A welcoming party of members of the Bikini population now living on Kili approaches the Jamez M. Cook, the ship carrying Commissioner Norwood and his group to Bikini atoll.
2. On board ship, greetings are exchanged. Mr. Dwight Heine, District Administrator for the area of the trust territory in which Kili is located, speaks to the welcoming party.
3. On ~~shore~~, flowers and a cool drink of fresh coconut milk were given to all visitors. The women provided a program of enthusiastic singing.
4. Commissioner Norwood and his party moved outside so that photographs could be taken of the meeting between the visitors and the Bikini population.
5. Commissioner Norwood tells the Bikini people the purpose of his visit. He discusses the plans that are being made for return to their home land.
6. Chutaro, interpreter for Commissioner Norwood's party, relays a question from Jibas, a Bikini council representative who will be among the first to return to Bikini with the Commissioner.

\*These captions are keyed to a number on the back of each photo. The photos have been arranged in the order in which the scenes occurred.

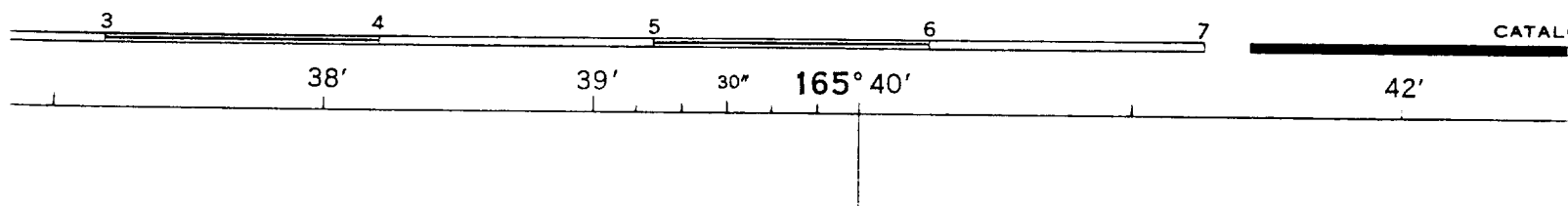
7. Mr. Norwood listens to comments from representatives of the Bikini people as Mr. Jack Tobin, the ~~F~~<sup>F</sup>irst Territory Bikini Project Officer, takes notes.
8. The oldest living member of the Bikini population listens to the discussion on return to Bikini atoll.
9. Talking together are High Commissioner Norwood and District Administrator Heine, following the meeting with the Bikini people on the island of Kili.
10. The structures shown are typical of those seen on Kili.  
The small house at the picture center is built of numerous materials, some native and some imported. Most dwellings are constructed with floors raised above the ground to improve ventilation. The entire village area is covered with pebbles.
11. The first of the returning Bikini natives runs up the beach as a second jumps into the surf for their first visit to Bikini island in about 22 years.
12. Old Glory is raised by Bikini natives over a freshly cleared area on the shore along with the U. S. Trust Territory Flag to symbolize the joint effort that is needed to resettle the atoll. A number of coconut seedlings are planted nearby to show the resolve of the natives to re-establish the life-giving coconut groves. The area chosen by the natives for their ceremony is near the grove sites which were

the first items to be sought by the former residents when they reached shore. The area of the grove sites had been marked and fenced to insure they would not be disturbed by any construction during testing operations.

13. This steel reinforced structure is located on the lagoon side of a heavy instrument bunker. The holes in the structure are alined with ports in the bunker behind which instruments were protected.
14. This heavily damaged bunker is situated on the island of Nam. Nam is the third largest island and is located in the northwest corner of Bikini atoll.
15. This ~~chamber~~<sup>chuck</sup> of reinforced concrete was found on the island of Eneman along the southern rim of the atoll. The gamma survey instrument shows the presence of induced radioactivity in the steel rods.
16. This heavy earth-covered bunker is almost completely overgrown by dense scrub vegetation. A tall steel tower in an advanced state of deterioration is located above the bunker.
17. The open door on the back side of this earth covered bunker is the entrance to a maze of right angled passageways designed to reduce the strength of blast waves entering this portal.



18. A heavy reinforced concrete bunker surrounded by dense scrub vegetation stands on Aerokojlol, an island along the southern rim of the atoll.
19. On returning from Bikini, Commissioner Norwood and his party visited the island of Rongelap. The purpose was to allow the Bikini natives opportunity to see the village that had been constructed for the Rongelap natives who were returned to their home island on June 29, 1957.



NORTH PACIFIC OCEAN  
MARSHALL ISLANDS—NORTHERN PART  
**BIKINI ATOLL**

From a Japanese survey in 1926  
with additions from U. S. Navy surveys to 1959

**SOUNDINGS IN FATHOMS**  
(Under Eleven in Fathoms and Feet)

reduced to the approximate level of Lowest Low Water

**HEIGHTS IN FEET ABOVE MEAN SEA LEVEL**

For Symbols and Abbreviations, see Chart No. 1

**MERCATOR PROJECTION**

LOCAL DATUM

SCALE 1:50,000

*map is in original  
file*



**OFFICIAL PHOTOGRAPH**

U. S. Army - Kwajalein Test Site

Not for publication unless officially released

Prepared by Kentron Hawaii Ltd.

Date SEP 4 1968 Neg. No. 417

*Romukku*



*cheerete*  
*Rukopji*

# OFFICIAL PHOTOGRAPH

U. S. Army - Kwajalein Test Site

Not for publication unless officially released  
Prepared by Kentron Hawaii Ltd.

Date SEP 4 1959

Neg. No. 423



**OFFICIAL PHOTOGRAPH**

**U.S. Army - Kunjain Test Site**

**Not for publication unless officially released**

**Property of Kodak Eastman Ltd.**

**Dated 14 1968 Reg. No. 416**





# OFFICIAL PHOTOGRAPH

U. S. Army - Kwajalein Test Site

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Date SEP 4 1968

Neg. No. 413



# OFFICIAL PHOTOGRAPH

U. S. Army - Kurejalon Test Site

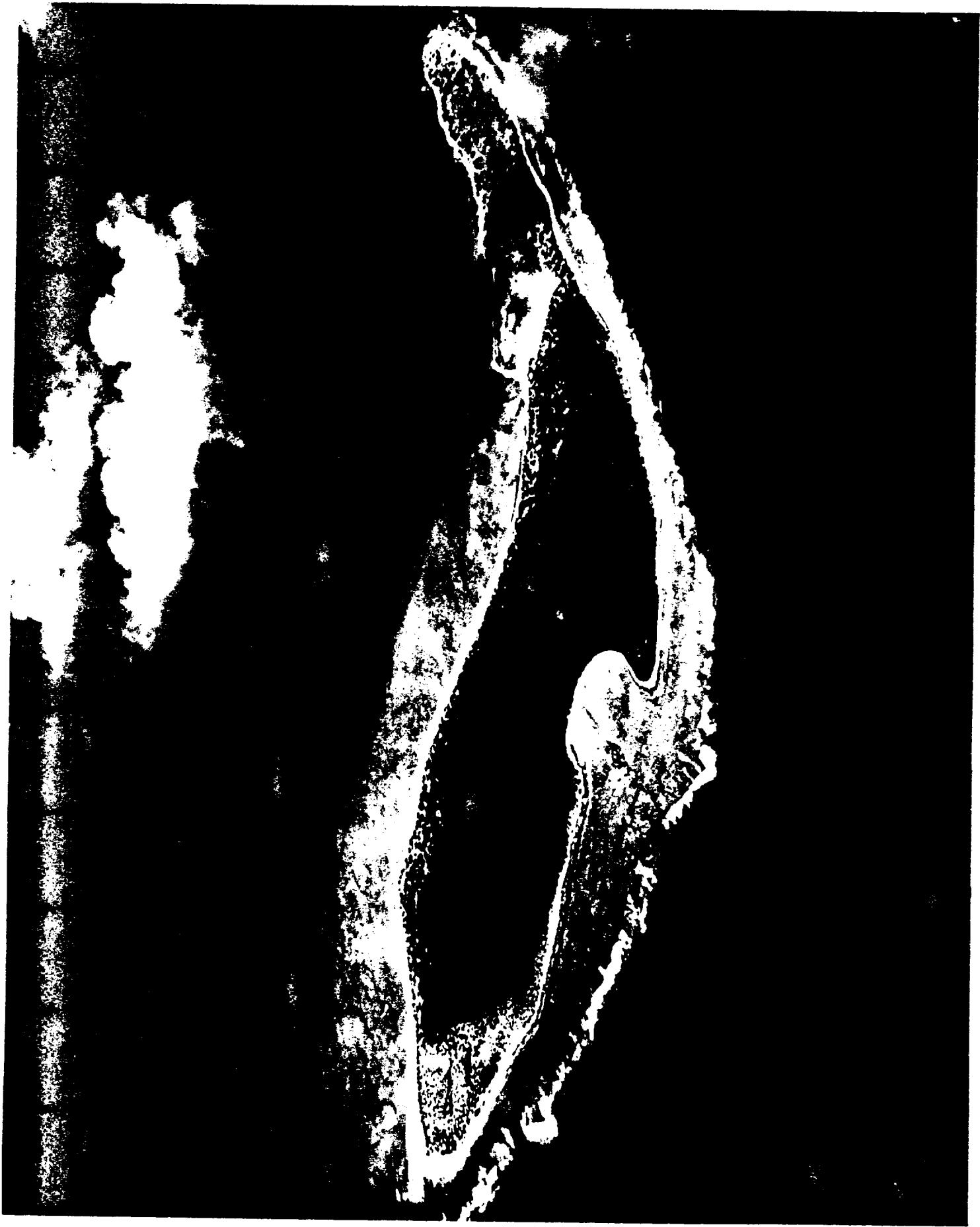
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*Worken*

*Yurochi*



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SEP 4 1968

Neg. No.

424

*Enrick*



# OFFICIAL PHOTOGRAPH

U. S. Army - Kwajalein Test Site

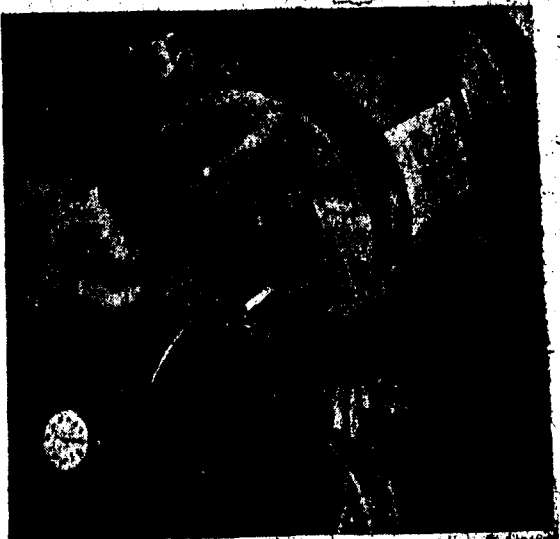
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Date SEP 4 1968 Neg. No. 420

BRIKIN





**RADIOACTIVE FISH** is put in a lead-shielded Geiger counter. A stop watch measures time of count.

CREW OF M/V RAN ANNIM

DONALD A. DAVIS, MASTER  
DEMETRIO SABADO, CH. MATE  
JESUS CABALES, 2nd MATE  
HARRY ANGEN, BOSN.  
INUS SIGRA, AB.  
ALEXANDER LELEN, AB.  
JUREN DAVID, OS.  
NATHANIEL HENRY, OS.  
ATADRIK MWEJIANA, OS.

WILLIAM P. Le COMPTE, CH. ENG.  
JESUS COSARE, 1st ASST. ENG.  
ANDRES FLORES, 2nd ASST. ENG.  
ARELON LAUTA, WIPER  
ZACHARIAS PAUL, WIPER  
BASILIO SEBASTIAN, WIPER

GREGORIO MONCOPA, STEWARD/ COOK  
LEJANG KABUA, ASST. COOK  
HARRY ALBON, MESSMAN  
LENAK MARCAL, MESSMAN



**SANDBLASTING** takes off radioactive paint on the side of a submarine exposed during Baker test.

# BIKINI ATOLL

## NORTH PACIFIC OCEAN

